Bio：

Prof. Shilpa Buch is a Member of the European Academy of Sciences, a Member of the Royal Academy of Belgium. She is the leader/director of Nebraska Center for Substance Abuse Research and senior Executive Vice-Chair of the Department of Pharmacology and Experimental Neuroscience.

She obtained her doctorate degree from Maharaja Sayajirao University in 1981 and moved to the US to pursue her postdoctoral work. She worked at the Prestigious Hospital for Sick Kids in Toronto as a Research Scientist and then joined the faculty at Kansas University Medical Center in 1996. Subsequently, she moved to the University of Nebraska as a full Professor in 2010, where she developed the Nebraska Center for Substance Abuse Research. She has been recognized by various national and international societies with the Wybran and the Distinguished Service Awards. She was also awarded the Kansas City scientist award in 2011 and the prestigious UNMC Scientist laureate award in 2015. Aligning closely with her passion for mentoring enabled her to take an active leading role in the Women's Mentoring Program at UNMC. She has also been the recipient of the Women in Neuroscience award in 2016 at the International Society of Neurovirology. She has successfully graduated from the Executive Leadership for Academic Medicine Program that fosters the growth and career trajectories of women leaders nationally.

Prof. Buch has published over 190 SCI papers with more than 10,000 citations and an H-index of 44 and is a coordinator and a principal leader of several national and international research and collaborative projects.

Prof. Buch's current research fields include understanding how addictive drugs such as cocaine/opiates co-operate with HIV-1 to exacerbate neurological complications. Research approaches used in her lab involve a multipronged approach comprising various complementary model systems ranging from cell cultures to rodent models of HIV-associated neurocognitive disorders to the higher, more relevant rhesus macaque model of SIV pathogenesis. More recently, her research focus is on exploring how extracellular vesicles or exosomes act as conduits to transport key signaling mediators (small non-coding RNAs/microRNAs) to distant recipient cells means to regulate gene expression and cellular cross-talk. Work from her lab has identified the role of autophagy and epigenetic pathways in HIV/cocaine-mediated microglial activation. Translational work from her group aims to develop novel therapeutic targets that can mitigate HIV & drug abuse-associated neuroinflammation and synaptodendritic injury.

Terms of Appointment

Jan 2021 - Jan 2025